Spectra® Mini Dome

Indoor, Ceiling Mount

C3401M-A (1/06)

Important Safety Instructions

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

7. Only use attachments/accessories specified by the manufacturer.

8. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

9. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

10. Installation should be done only by qualified personnel and conform to all local codes.

11. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.

12. Use only installation methods and materials capable of supporting four times the maximum specified load.

13. Use stainless steel hardware to fasten the mount to outdoor surfaces.

14. To prevent damage from water leakage when installing a mount outdoors on a roof or wall, apply sealant around the bolt holes between the mount and mounting surface.

15. **CAUTION:** These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other that contained in the operating instructions unless you are qualified to do so.

16. Only use replacement parts recommended by Pelco.

The product and/or manual may bear the following marks:

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit

This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

CAUTION:
RISK OF ELECTRIC SHOCK. DO NOT OPEN.

Regulatory Notices

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RADIO AND TELEVISION INTERFERENCE

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You may also find helpful the following booklet, prepared by the FCC: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402.

Changes and Modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission's rules.

This Class B digital apparatus complies with Canadian ICES-003.

Description

The Spectra® Mini is an indoor dome system designed for ceiling applications. The dome can be mounted to the surface of ceilings, or it can be recessed in hard ceilings or standard 2 x 2 ft (61 x 61 cm) tiles in suspended ceilings. The Spectra Mini includes a high resolution color camera; video output capability through either coaxial cable or UTP wiring; pan/tilt control using D, P, or Coaxitron® protocol; and on-screen programming.

A translator board can be installed on the dome for communication with non-Pelco controllers. The dome is compatible with the following translator boards:

TXB-AD	Translator board for American Dynamics controllers
TXB-B	Translator board for Philips (Burle) controllers
TXB-S422	Translator board for Sensormatic controllers
TXB-V	Translator board for Vicon controllers

MODELS

SD4-W0	Indoor dome system, smoked bubble, NTSC
SD4-W1	Indoor dome system, clear bubble, NTSC
SD4-W0-X	Indoor dome system, smoked bubble, PAL
SD4-W1-X	Indoor dome system, clear bubble, PAL

Installation

The following parts are supplied with the Spectra Mini dome system:

1 Dome drive
1 Dome bubble with trim ring
1 Interface cable with a male RJ45-10 connector on one end and four twisted wire pairs on the other end
1 Cover for use with optional translator board
2 #10 x 1.50-inch self-tapping screws for suspended ceiling installation
2 #8 x 3.50-inch self-tapping screws for surface mount installation
1 Installation manual
1 Operation/Programming manual
1 Template

The following parts, in addition to normal installation tools, are needed but not supplied:

1 Small flashlight for viewing switches
1 Long-handled flat-blade screwdriver for setting switches
2 6-32 toggle bolts for surface mount installation
2 8-32 studs and nuts for surface mount installation to concrete
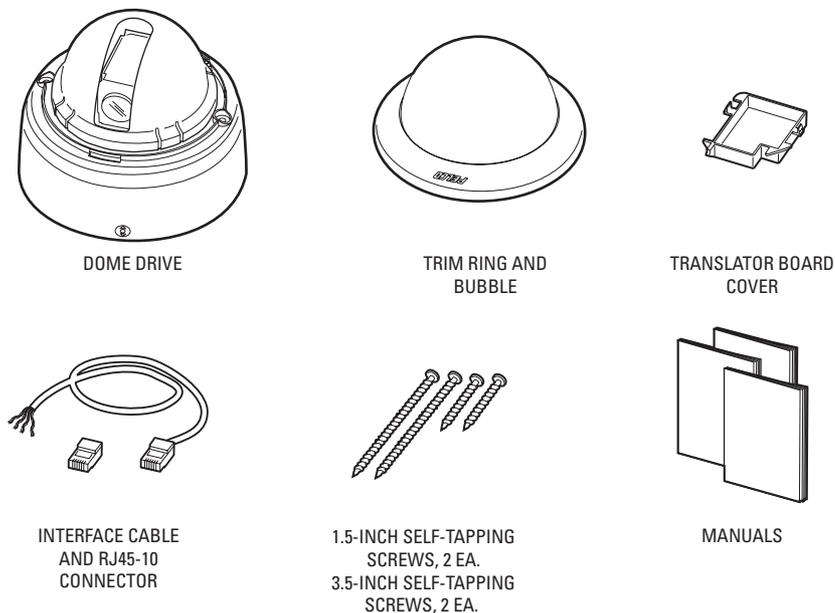2 3-16 toggle bolts for recessed installation in hard ceiling

DOME DRIVE

TRIM RING AND
BUBBLE

TRANSLATOR BOARD
COVER

INTERFACE CABLE
AND RJ45-10
CONNECTOR

1.5-INCH SELF-TAPPING
SCREWS, 2 EA.
3.5-INCH SELF-TAPPING
SCREWS, 2 EA.

MANUALS

Figure 1. Package Components

SWITCH SETTINGS

Coaxitron control: If you are going to use Coaxitron protocol to communicate with the dome system, you do not have to set any switches. Proceed to the installation instructions that follow this section.

Non-Pelco control: If you are going to install a protocol translator board to communicate with the dome system through a non-Pelco controller, proceed to the installation instructions that follow this section. When you are instructed to install the translator board, you will set the switches as described in the installation/operation manual that accompanies the translator board.

D or P control: If you are going to use D or P protocol to communicate with the dome system, follow the steps below to set the switches. Refer to Figure 2.

⚠ **WARNING:** Do not remove the dome liner (refer to Figure 2). Replacing the dome liner requires qualified service personnel; otherwise, the dome drive may not operate properly.

1. Place the dome drive on a flat surface with the dome liner pointing up.

2. Point the camera straight up.

3. Using a flashlight, look straight down through the viewing slot of the dome liner. Look at the circuit board in the bottom of the housing. Rotate the dome liner until you see two DIP switches on the circuit board.

4. Set the switches. Refer to Table A, Table B, and Table C. There are no settings for SW1.

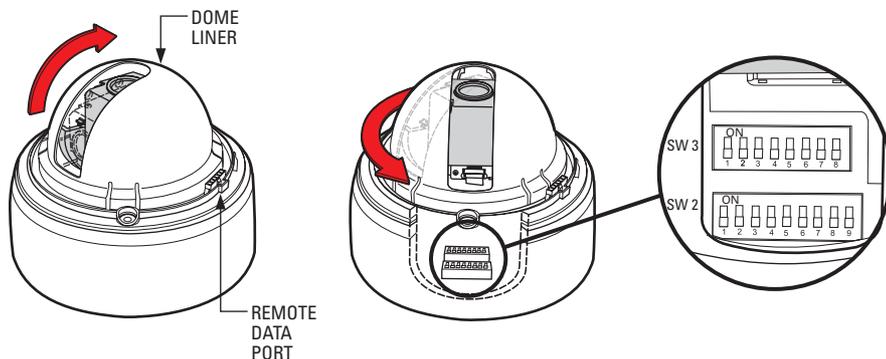**NOTE:** The unit automatically detects D or P protocal.

Figure 2. Component Locations

DATA PORT

The data port (refer to Figure 2) allows access for on-site setup and testing of the dome system. It also is used for uploading revised operating software and language files. Refer to *Software/Language File Upload* in the Operation/Programming manual.

Special Systems									
Switch Number	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8	SW2-9
AD-32 Preset System	ON								
CM9502 Setting		ON							
Baud Rate									
Switch Number	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8	SW2-9
2400 Baud						OFF	OFF	OFF	
4800 Baud						ON	OFF	OFF	
9600 Baud						OFF	ON	OFF	
Protocol Termination									
Switch Number	SW2-1	SW2-2	SW2-3	SW2-4	SW2-5	SW2-6	SW2-7	SW2-8	SW2-9
Terminated									ON*
Not Terminated									OFF*

*If you are connecting a single dome to a controller, terminate the dome. When connecting more than one dome to a single controller, terminate the dome farthest from the controller.

Table B. Switch Settings for SW3 (P-Type Control)

SPECTRA ADDRESS	SWITCH SETTING					SPECTRA ADDRESS	SWITCH SETTING				
	SW3-1	SW3-2	SW3-3	SW3-4	SW3-5		SW3-1	SW3-2	SW3-3	SW3-4	SW3-5
1	OFF	OFF	OFF	OFF	OFF	17	OFF	OFF	OFF	OFF	ON
2	ON	OFF	OFF	OFF	OFF	18	ON	OFF	OFF	OFF	ON
3	OFF	ON	OFF	OFF	OFF	19	OFF	ON	OFF	OFF	ON
4	ON	ON	OFF	OFF	OFF	20	ON	ON	OFF	OFF	ON
5	OFF	OFF	ON	OFF	OFF	21	OFF	OFF	ON	OFF	ON
6	ON	OFF	ON	OFF	OFF	22	ON	OFF	ON	OFF	ON
7	OFF	ON	ON	OFF	OFF	23	OFF	ON	ON	OFF	ON
8	ON	ON	ON	OFF	OFF	24	ON	ON	ON	OFF	ON
9	OFF	OFF	OFF	ON	OFF	25	OFF	OFF	OFF	ON	ON
10	ON	OFF	OFF	ON	OFF	26	ON	OFF	OFF	ON	ON
11	OFF	ON	OFF	ON	OFF	27	OFF	ON	OFF	ON	ON
12	ON	ON	OFF	ON	OFF	28	ON	ON	OFF	ON	ON
13	OFF	OFF	ON	ON	OFF	29	OFF	OFF	ON	ON	ON
14	ON	OFF	ON	ON	OFF	30	ON	OFF	ON	ON	ON
15	OFF	ON	ON	ON	OFF	31	OFF	ON	ON	ON	ON
16	ON	ON	ON	ON	OFF	32	ON	ON	ON	ON	ON

Table C. Switch Settings for SW3 (D-Type Control)

SPECTRA ADDRESS	SWITCH SETTING							
	SW3-1	SW3-2	SW3-3	SW3-4	SW3-5	SW3-6	SW3-7	SW3-8
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF
33	ON	OFF	OFF	OFF	OFF	ON	OFF	OFF
34	OFF	ON	OFF	OFF	OFF	ON	OFF	OFF
35	ON	ON	OFF	OFF	OFF	ON	OFF	OFF
36	OFF	OFF	ON	OFF	OFF	ON	OFF	OFF
37	ON	OFF	ON	OFF	OFF	ON	OFF	OFF
38	OFF	ON	ON	OFF	OFF	ON	OFF	OFF

Table C. Switch Settings for SW3 (D-Type Control) *(Continued)*

SPECTRA ADDRESS	SWITCH SETTING							
	SW3-1	SW3-2	SW3-3	SW3-4	SW3-5	SW3-6	SW3-7	SW3-8
39	ON	ON	ON	OFF	OFF	ON	OFF	OFF
40	OFF	OFF	OFF	ON	OFF	ON	OFF	OFF
41	ON	OFF	OFF	ON	OFF	ON	OFF	OFF
42	OFF	ON	OFF	ON	OFF	ON	OFF	OFF
43	ON	ON	OFF	ON	OFF	ON	OFF	OFF
44	OFF	OFF	ON	ON	OFF	ON	OFF	OFF
45	ON	OFF	ON	ON	OFF	ON	OFF	OFF
46	OFF	ON	ON	ON	OFF	ON	OFF	OFF
47	ON	ON	ON	ON	OFF	ON	OFF	OFF
48	OFF	OFF	OFF	OFF	ON	ON	OFF	OFF
49	ON	OFF	OFF	OFF	ON	ON	OFF	OFF
50	OFF	ON	OFF	OFF	ON	ON	OFF	OFF
51	ON	ON	OFF	OFF	ON	ON	OFF	OFF
52	OFF	OFF	ON	OFF	ON	ON	OFF	OFF
53	ON	OFF	ON	OFF	ON	ON	OFF	OFF
54	OFF	ON	ON	OFF	ON	ON	OFF	OFF
55	ON	ON	ON	OFF	ON	ON	OFF	OFF
56	OFF	OFF	OFF	ON	ON	ON	OFF	OFF
57	ON	OFF	OFF	ON	ON	ON	OFF	OFF
58	OFF	ON	OFF	ON	ON	ON	OFF	OFF
59	ON	ON	OFF	ON	ON	ON	OFF	OFF
60	OFF	OFF	ON	ON	ON	ON	OFF	OFF
61	ON	OFF	ON	ON	ON	ON	OFF	OFF
62	OFF	ON	ON	ON	ON	ON	OFF	OFF
63	ON	ON	ON	ON	ON	ON	OFF	OFF
64	OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF
65	ON	OFF	OFF	OFF	OFF	OFF	ON	OFF
66	OFF	ON	OFF	OFF	OFF	OFF	ON	OFF
67	ON	ON	OFF	OFF	OFF	OFF	ON	OFF
68	OFF	OFF	ON	OFF	OFF	OFF	ON	OFF
69	ON	OFF	ON	OFF	OFF	OFF	ON	OFF
70	OFF	ON	ON	OFF	OFF	OFF	ON	OFF
71	ON	ON	ON	OFF	OFF	OFF	ON	OFF
72	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF
73	ON	OFF	OFF	ON	OFF	OFF	ON	OFF
74	OFF	ON	OFF	ON	OFF	OFF	ON	OFF
75	ON	ON	OFF	ON	OFF	OFF	ON	OFF
76	OFF	OFF	ON	ON	OFF	OFF	ON	OFF

Table C. Switch Settings for SW3 (D-Type Control) *(Continued)*

SPECTRA ADDRESS	SWITCH SETTING							
	SW3-1	SW3-2	SW3-3	SW3-4	SW3-5	SW3-6	SW3-7	SW3-8
77	ON	OFF	ON	ON	OFF	OFF	ON	OFF
78	OFF	ON	ON	ON	OFF	OFF	ON	OFF
79	ON	ON	ON	ON	OFF	OFF	ON	OFF
80	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF
81	ON	OFF	OFF	OFF	ON	OFF	ON	OFF
82	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
83	ON	ON	OFF	OFF	ON	OFF	ON	OFF
84	OFF	OFF	ON	OFF	ON	OFF	ON	OFF
85	ON	OFF	ON	OFF	ON	OFF	ON	OFF
86	OFF	ON	ON	OFF	ON	OFF	ON	OFF
87	ON	ON	ON	OFF	ON	OFF	ON	OFF
88	OFF	OFF	OFF	ON	ON	OFF	ON	OFF
89	ON	OFF	OFF	ON	ON	OFF	ON	OFF
90	OFF	ON	OFF	ON	ON	OFF	ON	OFF
91	ON	ON	OFF	ON	ON	OFF	ON	OFF
92	OFF	OFF	ON	ON	ON	OFF	ON	OFF
93	ON	OFF	ON	ON	ON	OFF	ON	OFF
94	OFF	ON	ON	ON	ON	OFF	ON	OFF
95	ON	ON	ON	ON	ON	OFF	ON	OFF
96	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF
97	ON	OFF	OFF	OFF	OFF	ON	ON	OFF
98	OFF	ON	OFF	OFF	OFF	ON	ON	OFF
99	ON	ON	OFF	OFF	OFF	ON	ON	OFF
100	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
101	ON	OFF	ON	OFF	OFF	ON	ON	OFF
102	OFF	ON	ON	OFF	OFF	ON	ON	OFF
103	ON	ON	ON	OFF	OFF	ON	ON	OFF
104	OFF	OFF	OFF	ON	OFF	ON	ON	OFF
105	ON	OFF	OFF	ON	OFF	ON	ON	OFF
106	OFF	ON	OFF	ON	OFF	ON	ON	OFF
107	ON	ON	OFF	ON	OFF	ON	ON	OFF
108	OFF	OFF	ON	ON	OFF	ON	ON	OFF
109	ON	OFF	ON	ON	OFF	ON	ON	OFF
110	OFF	ON	ON	ON	OFF	ON	ON	OFF
111	ON	ON	ON	ON	OFF	ON	ON	OFF
112	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
113	ON	OFF	OFF	OFF	ON	ON	ON	OFF
114	OFF	ON	OFF	OFF	ON	ON	ON	OFF

Table C. Switch Settings for SW3 (D-Type Control) *(Continued)*

SPECTRA ADDRESS	SWITCH SETTING							
	SW3-1	SW3-2	SW3-3	SW3-4	SW3-5	SW3-6	SW3-7	SW3-8
115	ON	ON	OFF	OFF	ON	ON	ON	OFF
116	OFF	OFF	ON	OFF	ON	ON	ON	OFF
117	ON	OFF	ON	OFF	ON	ON	ON	OFF
118	OFF	ON	ON	OFF	ON	ON	ON	OFF
119	ON	ON	ON	OFF	ON	ON	ON	OFF
120	OFF	OFF	OFF	ON	ON	ON	ON	OFF
121	ON	OFF	OFF	ON	ON	ON	ON	OFF
122	OFF	ON	OFF	ON	ON	ON	ON	OFF
123	ON	ON	OFF	ON	ON	ON	ON	OFF
124	OFF	OFF	ON	ON	ON	ON	ON	OFF
125	ON	OFF	ON	ON	ON	ON	ON	OFF
126	OFF	ON	ON	ON	ON	ON	ON	OFF
127	ON	ON	ON	ON	ON	ON	ON	OFF
128	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
129	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
130	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
131	ON	ON	OFF	OFF	OFF	OFF	OFF	ON
132	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
133	ON	OFF	ON	OFF	OFF	OFF	OFF	ON
134	OFF	ON	ON	OFF	OFF	OFF	OFF	ON
135	ON	ON	ON	OFF	OFF	OFF	OFF	ON
136	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
137	ON	OFF	OFF	ON	OFF	OFF	OFF	ON
138	OFF	ON	OFF	ON	OFF	OFF	OFF	ON
139	ON	ON	OFF	ON	OFF	OFF	OFF	ON
140	OFF	OFF	ON	ON	OFF	OFF	OFF	ON
141	ON	OFF	ON	ON	OFF	OFF	OFF	ON
142	OFF	ON	ON	ON	OFF	OFF	OFF	ON
143	ON	ON	ON	ON	OFF	OFF	OFF	ON
144	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON
145	ON	OFF	OFF	OFF	ON	OFF	OFF	ON
146	OFF	ON	OFF	OFF	ON	OFF	OFF	ON
147	ON	ON	OFF	OFF	ON	OFF	OFF	ON
148	OFF	OFF	ON	OFF	ON	OFF	OFF	ON
149	ON	OFF	ON	OFF	ON	OFF	OFF	ON
150	OFF	ON	ON	OFF	ON	OFF	OFF	ON
151	ON	ON	ON	OFF	ON	OFF	OFF	ON
152	OFF	OFF	OFF	ON	ON	OFF	OFF	ON

Table C. Switch Settings for SW3 (D-Type Control) *(Continued)*

SPECTRA ADDRESS	SWITCH SETTING							
	SW3-1	SW3-2	SW3-3	SW3-4	SW3-5	SW3-6	SW3-7	SW3-8
153	ON	OFF	OFF	ON	ON	OFF	OFF	ON
154	OFF	ON	OFF	ON	ON	OFF	OFF	ON
155	ON	ON	OFF	ON	ON	OFF	OFF	ON
156	OFF	OFF	ON	ON	ON	OFF	OFF	ON
157	ON	OFF	ON	ON	ON	OFF	OFF	ON
158	OFF	ON	ON	ON	ON	OFF	OFF	ON
159	ON	ON	ON	ON	ON	OFF	OFF	ON
160	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON
161	ON	OFF	OFF	OFF	OFF	ON	OFF	ON
162	OFF	ON	OFF	OFF	OFF	ON	OFF	ON
163	ON	ON	OFF	OFF	OFF	ON	OFF	ON
164	OFF	OFF	ON	OFF	OFF	ON	OFF	ON
165	ON	OFF	ON	OFF	OFF	ON	OFF	ON
166	OFF	ON	ON	OFF	OFF	ON	OFF	ON
167	ON	ON	ON	OFF	OFF	ON	OFF	ON
168	OFF	OFF	OFF	ON	OFF	ON	OFF	ON
169	ON	OFF	OFF	ON	OFF	ON	OFF	ON
170	OFF	ON	OFF	ON	OFF	ON	OFF	ON
171	ON	ON	OFF	ON	OFF	ON	OFF	ON
172	OFF	OFF	ON	ON	OFF	ON	OFF	ON
173	ON	OFF	ON	ON	OFF	ON	OFF	ON
174	OFF	ON	ON	ON	OFF	ON	OFF	ON
175	ON	ON	ON	ON	OFF	ON	OFF	ON
176	OFF	OFF	OFF	OFF	ON	ON	OFF	ON
177	ON	OFF	OFF	OFF	ON	ON	OFF	ON
178	OFF	ON	OFF	OFF	ON	ON	OFF	ON
179	ON	ON	OFF	OFF	ON	ON	OFF	ON
180	OFF	OFF	ON	OFF	ON	ON	OFF	ON
181	ON	OFF	ON	OFF	ON	ON	OFF	ON
182	OFF	ON	ON	OFF	ON	ON	OFF	ON
183	ON	ON	ON	OFF	ON	ON	OFF	ON
184	OFF	OFF	OFF	ON	ON	ON	OFF	ON
185	ON	OFF	OFF	ON	ON	ON	OFF	ON
186	OFF	ON	OFF	ON	ON	ON	OFF	ON
187	ON	ON	OFF	ON	ON	ON	OFF	ON
188	OFF	OFF	ON	ON	ON	ON	OFF	ON
189	ON	OFF	ON	ON	ON	ON	OFF	ON
190	OFF	ON	ON	ON	ON	ON	OFF	ON

Table C. Switch Settings for SW3 (D-Type Control) *(Continued)*

SPECTRA ADDRESS	SWITCH SETTING							
	SW3-1	SW3-2	SW3-3	SW3-4	SW3-5	SW3-6	SW3-7	SW3-8
191	ON	ON	ON	ON	ON	ON	OFF	ON
192	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON
193	ON	OFF	OFF	OFF	OFF	OFF	ON	ON
194	OFF	ON	OFF	OFF	OFF	OFF	ON	ON
195	ON	ON	OFF	OFF	OFF	OFF	ON	ON
196	OFF	OFF	ON	OFF	OFF	OFF	ON	ON
197	ON	OFF	ON	OFF	OFF	OFF	ON	ON
198	OFF	ON	ON	OFF	OFF	OFF	ON	ON
199	ON	ON	ON	OFF	OFF	OFF	ON	ON
200	OFF	OFF	OFF	ON	OFF	OFF	ON	ON
201	ON	OFF	OFF	ON	OFF	OFF	ON	ON
202	OFF	ON	OFF	ON	OFF	OFF	ON	ON
203	ON	ON	OFF	ON	OFF	OFF	ON	ON
204	OFF	OFF	ON	ON	OFF	OFF	ON	ON
205	ON	OFF	ON	ON	OFF	OFF	ON	ON
206	OFF	ON	ON	ON	OFF	OFF	ON	ON
207	ON	ON	ON	ON	OFF	OFF	ON	ON
208	OFF	OFF	OFF	OFF	ON	OFF	ON	ON
209	ON	OFF	OFF	OFF	ON	OFF	ON	ON
210	OFF	ON	OFF	OFF	ON	OFF	ON	ON
211	ON	ON	OFF	OFF	ON	OFF	ON	ON
212	OFF	OFF	ON	OFF	ON	OFF	ON	ON
213	ON	OFF	ON	OFF	ON	OFF	ON	ON
214	OFF	ON	ON	OFF	ON	OFF	ON	ON
215	ON	ON	ON	OFF	ON	OFF	ON	ON
216	OFF	OFF	OFF	ON	ON	OFF	ON	ON
217	ON	OFF	OFF	ON	ON	OFF	ON	ON
218	OFF	ON	OFF	ON	ON	OFF	ON	ON
219	ON	ON	OFF	ON	ON	OFF	ON	ON
220	OFF	OFF	ON	ON	ON	OFF	ON	ON
221	ON	OFF	ON	ON	ON	OFF	ON	ON
222	OFF	ON	ON	ON	ON	OFF	ON	ON
223	ON	ON	ON	ON	ON	OFF	ON	ON
224	OFF	OFF	OFF	OFF	OFF	ON	ON	ON
225	ON	OFF	OFF	OFF	OFF	ON	ON	ON
226	OFF	ON	OFF	OFF	OFF	ON	ON	ON
227	ON	ON	OFF	OFF	OFF	ON	ON	ON
228	OFF	OFF	ON	OFF	OFF	ON	ON	ON

Table C. Switch Settings for SW3 (D-Type Control) *(Continued)*

SPECTRA ADDRESS	SWITCH SETTING							
	SW3-1	SW3-2	SW3-3	SW3-4	SW3-5	SW3-6	SW3-7	SW3-8
229	ON	OFF	ON	OFF	OFF	ON	ON	ON
230	OFF	ON	ON	OFF	OFF	ON	ON	ON
231	ON	ON	ON	OFF	OFF	ON	ON	ON
232	OFF	OFF	OFF	ON	OFF	ON	ON	ON
233	ON	OFF	OFF	ON	OFF	ON	ON	ON
234	OFF	ON	OFF	ON	OFF	ON	ON	ON
235	ON	ON	OFF	ON	OFF	ON	ON	ON
236	OFF	OFF	ON	ON	OFF	ON	ON	ON
237	ON	OFF	ON	ON	OFF	ON	ON	ON
238	OFF	ON	ON	ON	OFF	ON	ON	ON
239	ON	ON	ON	ON	OFF	ON	ON	ON
240	OFF	OFF	OFF	OFF	ON	ON	ON	ON
241	ON	OFF	OFF	OFF	ON	ON	ON	ON
242	OFF	ON	OFF	OFF	ON	ON	ON	ON
243	ON	ON	OFF	OFF	ON	ON	ON	ON
244	OFF	OFF	ON	OFF	ON	ON	ON	ON
245	ON	OFF	ON	OFF	ON	ON	ON	ON
246	OFF	ON	ON	OFF	ON	ON	ON	ON
247	ON	ON	ON	OFF	ON	ON	ON	ON
248	OFF	OFF	OFF	ON	ON	ON	ON	ON
249	ON	OFF	OFF	ON	ON	ON	ON	ON
250	OFF	ON	OFF	ON	ON	ON	ON	ON
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON

SURFACE MOUNT INSTALLATION

1. On top of the dome drive is an opening for an optional translator board. The opening has a cover that must be left in place if a translator board is not required. A taller cover is supplied if a translator board is installed.

   If you are going to install a translator board, follow the instructions that come with the translator board.

   If you are not going to install a translator board, save the taller cover in case a translator board is ever installed.

2. Prepare the ceiling as follows:

   a. Using the supplied template, drill holes for toggle bolts or studs. Refer to Figure 3 or Figure 4.

   b. **Dome with translator board:** Punch out the pie-shaped section from the supplied templates. Using the pie-shaped template, either cut a hole through the ceiling or make a hole with a depth of 0.25 inches (6 mm).

   c. Drill a hole in the ceiling for wiring. Note that you do not have to run wiring through the ceiling; you can fasten the wires to the ceiling and then run the wires through the air gap between the ceiling and the surface mount ring as shown in Figure 5.

3. Connect the wiring and attach the dome drive to the ceiling.

   You can plug the male RJ45-10 connector (also known as an RJ-50 connector) on the supplied interface cable (refer to Figure 6) into the mating connector on top of the dome drive and then connect your wiring to the other end of the cable.

   Or

   You can connect the supplied RJ45-10 connector to your wiring and then plug the connector into the dome drive.

   ⚠ **WARNING:** Do not over-tighten the mounting hardware. Doing so can impede the pan movement of the dome drive.

   Refer to Figure 3 and Figure 4 for installing the dome drive.

   Refer to Figure 6, Table D, Table E, and Table F for wiring connections. Note that you can connect video using either an unshielded twisted pair (UTP) of wires (refer to Table D) or coaxial cable (refer to Table E.) A BNC connector for coaxial cable is attached to the dome drive.

   If you are wiring more than one dome drive to the same transformer, connect one side of the transformer to pin 9 of the RJ45-10 connector on all modules. Connect the other side of the transformer to pin 10 of the RJ45-10 connector on all modules. Failure to connect all modules the same way will cause the cameras to be out of phase with each other and may produce a vertical roll when switching between cameras.

4. Line up the tabs on the trim ring with the slots in the dome drive. Snap the trim ring and bubble into place.
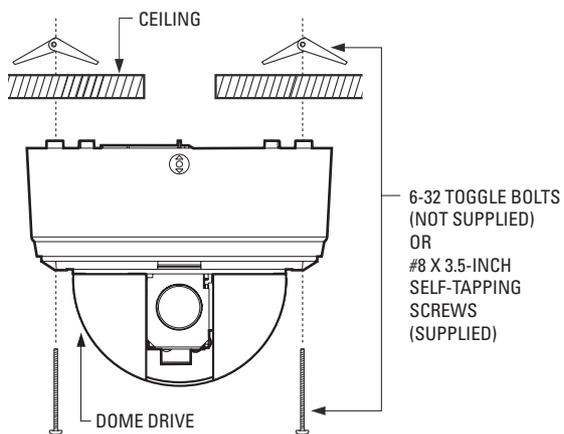
Figure 3. Ceiling Installation
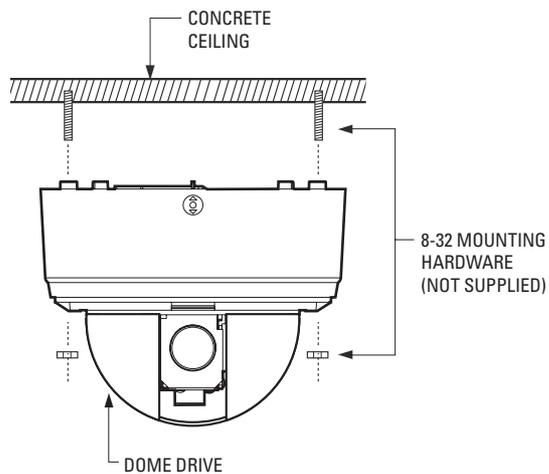
Figure 4. Concrete Ceiling Installation
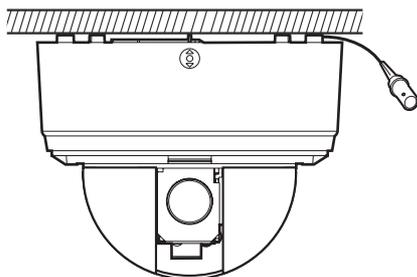
Figure 5. Wiring Attached to Ceiling
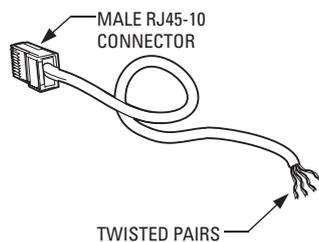
Figure 6. Interface Cable

Table D. Interface Cable Wiring

Pin	Color	Function
1	ORANGE	UTP-
2	WHITE/ORANGE	UTP+
3	GREEN	RX-
4	WHITE/GREEN	RX+
5	BLUE	TX-
6	WHITE/BLUE	TX+
7	NOT USED	
8	NOT USED	
9	BROWN	24 V ∿
10	WHITE/BROWN	24 V ∿

Table E. Video Coaxial Cable Requirements

Cable Type*	Maximum Distance
RG59/U	750 ft (229 m)
RG6/U	1,000 ft (305 m)
RG11/U	1,500 ft (457 m)

*Cable requirements:
   75-ohm impedance
   All-copper center conductor
   All-copper braided shield with 95% braid coverage

Table F. Wiring Distances

The following are the recommended maximum distances for 24 VAC applications and are calculated with a 10 percent voltage drop. (Ten percent is generally the maximum allowable voltage drop for AC-powered devices.

Voltage	Wire Gauge			
	18 (1.0 mm^2)	**16** (1.5 mm^2)	**14** (2.5 mm^2)	**12** (3.5 mm^2)
24 VAC	215 ft (97 m)	341 ft (154 m)	542 ft (245 m)	863 ft (391 m)

NOTE: Power consumption is 21 VA per unit. Use a power source with a minimum of 21 VA per unit.

RECESSED INSTALLATION

SUSPENDED CEILING

1. On top of the dome drive is an opening for an optional translator board. The opening has a cover that must be left in place if a translator board is not required. A taller cover is supplied if a translator board is installed.

   If you are going to install a translator board, follow the instructions that come with the translator board.

   If you are not going to install a translator board, save the taller cover in case a translator board is ever installed.

2. Remove the ceiling tile from the ceiling.

3. Using the supplied template, cut holes in the ceiling tile for the dome drive and mounting hardware.

4. Remove the surface mount ring from the dome drive as follows. Refer to Figure 7.

   a. Place fingers on the circular marks located on the sides of the surface mount ring.

   b. Pinch the sides.

   c. Lift and remove the surface mount ring from the dome drive. Do not discard the surface mount ring because it is required to complete the installation.

5. Connect the wiring and attach the dome drive to the ceiling tile.

   Using the supplied interface cable:

   a. Plug the male RJ45-10 connector (also known as an RJ-50 connector) on the supplied interface cable (refer to Figure 6) into the mating connector on top of the dome drive.

   b. Turn the surface ring upside down, and place it on the inside of the ceiling tile. Refer to Figure 8.

   ⚡ **WARNING:** Do not over-tighten the mounting hardware. Doing so can impede the pan movement of the dome drive.

   c. Attach the dome drive to the ceiling tile and surface mount ring with the two #10 x 1.50-inch self-tapping screws (supplied). Refer to Figure 8.

   d. Replace the ceiling tile.

   e. Remove an adjacent ceiling tile, and connect your wiring to the dome drive.

   Refer to Figure 6, Table D, Table E, and Table F for wiring connections. Note that you can connect video using either an unshielded twisted pair (UTP) of wires (refer to Table D) or coaxial cable (refer to Table E.) A BNC connector for coaxial cable is attached to the dome drive.

   If you are wiring more than one dome drive to the same transformer, connect one side of the transformer to pin 9 of the RJ45-10 connector on all modules. Connect the other side of the transformer to pin 10 of the RJ45-10 connector on all modules. Failure to connect all modules the same way will cause the cameras to be out of phase with each other and may produce a vertical roll when switching between cameras.

Using the supplied RJ45-10 connector:

a. Connect the supplied RJ45-10 connector to your wiring and then plug the connector into the dome drive.

    Refer to Figure 6, Table D, Table E, and Table F for wiring connections. Note that you can connect video using either an unshielded twisted pair (UTP) of wires (refer to Table D) or coaxial cable (refer to Table E.) A BNC connector for coaxial cable is attached to the dome drive.

    If you are wiring more than one dome drive to the same transformer, connect one side of the transformer to pin 9 of the RJ45-10 connector on all modules. Connect the other side of the transformer to pin 10 of the RJ45-10 connector on all modules. Failure to connect all modules the same way will cause the cameras to be out of phase with each other and may produce a vertical roll when switching between cameras.

b. Turn the surface ring upside down, and place it on the inside of the ceiling tile. Refer to Figure 8.

⚠ **WARNING:** Do not over-tighten the mounting hardware. Doing so can impede the pan movement of the dome drive.

c. Attach the dome drive to the ceiling tile and surface mount ring with the two #10 x 1.50-inch self-tapping screws (supplied). Refer to Figure 8.

d. Replace the ceiling tile.
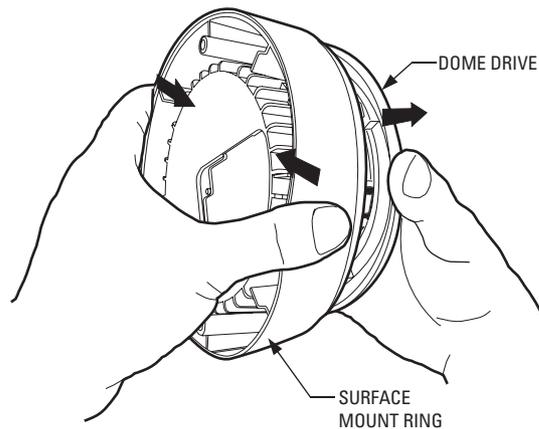
Figure 7. How to Remove Surface Mount Ring

SURFACE MOUNT RING

CEILING
TILE

DOME DRIVE

#10 x 1.50-INCH
SELF-TAPPING
SCREWS
(SUPPLIED)
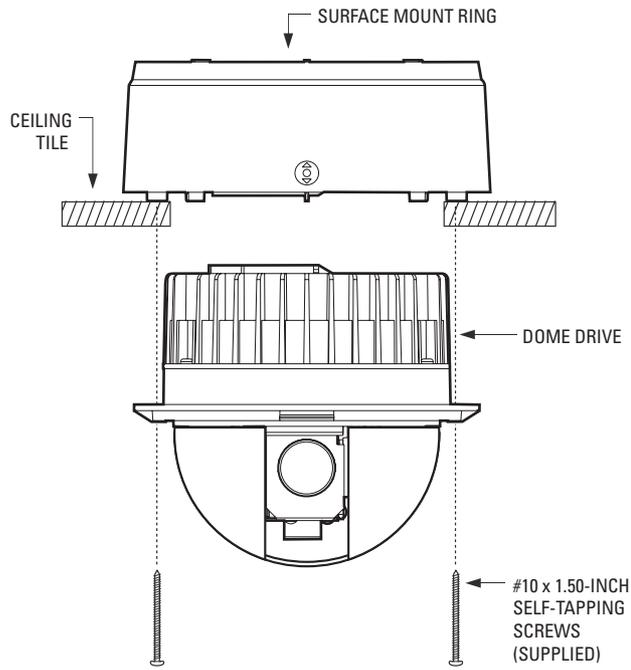
Figure 8. Ceiling Tile Installation

6. Line up the tabs on the trim ring with the slots in the dome drive. Snap the trim ring and dome bubble into place.

HARD CEILING

1. On top of the dome drive is an opening for an optional translator board. The opening has a cover that must be left in place if a translator board is not required. A taller cover is supplied if a translator board is installed.

   If you are going to install a translator board, follow the instructions that come with the translator board.

   If you are not going to install a translator board, save the taller cover in case a translator board is ever installed.

2. Using the supplied template, cut holes in the ceiling for the dome drive and mounting hardware. Pull the wiring for power, video, and control through the ceiling.

3. Remove the surface mount ring from the dome drive as follows. Refer to Figure 7.

   a. Place fingers on the circular marks located on the sides of the surface mount ring.

   b. Pinch the sides.

   c. Lift and remove the surface mount ring from the dome drive.

4. Connect the wiring.

   You can plug the male RJ45-10 connector (also known as an RJ-50 connector) on the supplied interface cable (refer to Figure 6) into the mating connector on top of the dome drive and then connect your wiring to the other end of the cable.

   Or

   You can connect the supplied RJ45-10 connector to your wiring and then plug the connector into the dome drive.

   Refer to Figure 6, Table D, Table E, and Table F for wiring connections. Note that you can connect video using either an unshielded twisted pair (UTP) of wires (refer to Table D) or coaxial cable (refer to Table E.) A BNC connector for coaxial cable is attached to the dome drive.

   If you are wiring more than one dome drive to the same transformer, connect one side of the transformer to pin 9 of the RJ45-10 connector on all modules. Connect the other side of the transformer to pin 10 of the RJ45-10 connector on all modules. Failure to connect all modules the same way will cause the cameras to be out of phase with each other and may produce a vertical roll when switching between cameras.

WARNING: Do not over-tighten the mounting hardware. Doing so can impede the pan movement of the dome drive.

5. Attach the dome drive to the ceiling with the two 3-16 toggle bolts (not supplied). Refer to Figure 9.
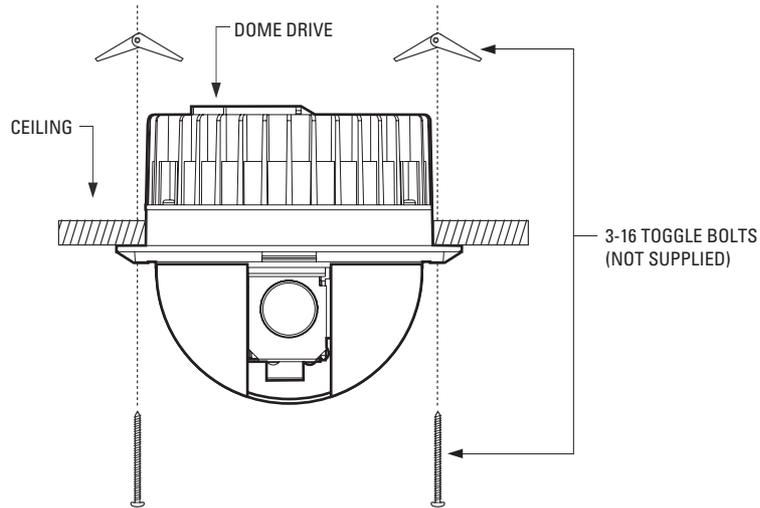

Figure 9. In-Ceiling Installation to a Fixed Ceiling

6. Line up the tabs on the trim ring with the slots in the dome drive. Snap the trim ring and bubble into place.

Specifications

MECHANICAL

Pan Movement   360° continuous pan rotation

Vertical Tilt   Unobstructed +2° to -92°

Manual Pan/Tilt Speeds
    Pan   0.4-80°/sec manual operation, 100°/sec turbo
    Tilt   0.7-40°/sec manual operation

Preset Speeds
    Pan   140°/sec
    Tilt   80°/sec
            For variable speed operation an appropriate controller is required.

ELECTRICAL

Input Voltage   18-30 VAC, 24 VAC nominal

Input Power   21 VA nominal

Fuse   1.6 A

GENERAL

Construction
    Top Cap   Anodized cast aluminum
    Trim Ring and
    Surface Mount Ring   ABS plastic
    Bubble   Acrylic

Finish   White

Light Attenuation
    Smoked   1/2 F-stop light loss
    Clear   Zero light loss

Cable Entry   Single RJ45-10 connector, pigtail supplied
            BNC connector

Environment   Indoor

Weight   1.75 lb (0.79 kg)

CAMERA

Signal Format   NTSC/PAL

Scanning System   2:1 interlace

Image Sensor   1/4-inch interline CCD

Effective Pixels
    NTSC   768 (H) x 494 (V)
    PAL   752 (H) x 582 (V)

Horizontal Resolution
  NTSC   >470 TV lines
  PAL   >460 TV lines

|	
Minimum Illumination	3.0 lux
Sync System	AC line lock, phase adjustable via remote control, V-Sync
White Balance	Automatic with manual override
Shutter Speed	Automatic (electronic iris)/manual 1/60~1/30,000
Gain Control	Automatic with manual override
Video Output	1.0 to 1.2 Vp-p, 75 ohms, adjustable
Video Signal-to-Noise Ratio	>50 dB

LENS

Lens	F1.8 (F=4.2-42 mm optical) 10X optical zoom, 8X digital zoom
Zoom Speed (optical range)	1.5/2.5/4.3 seconds
Horizontal Angle of View	46.4° wide zoom 5.0° telephoto zoom
Focus	Automatic with manual override
Iris Control	Automatic with manual override

(Design and product specifications subject to change without notice.)

WITH TXB TRANSLATOR BOARD
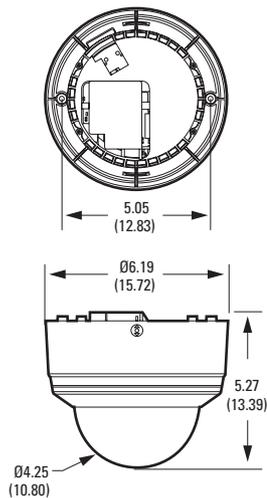
WITHOUT TXB TRANSLATOR BOARD
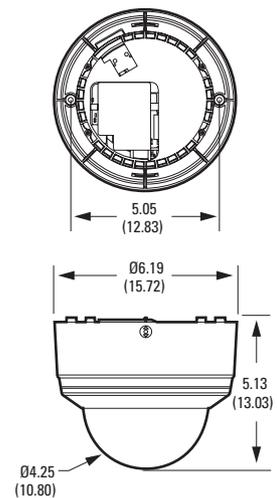
NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

PRODUCT WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Two years (except lamp and color wheel) on Digital Light Processing (DLP®) displays. The lamp and color wheel will be covered for a period of 90 days. The air filter is not covered under warranty.
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, Endura™ Series distributed network-based video products, and TW3000 Series twisted pair transmission products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

Service Department
Pelco
3500 Pelco Way
Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:
Pelco
3500 Pelco Way
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:
Pelco c/o Expeditors
473 Eccles Avenue
South San Francisco, CA 94080 USA
Phone: 650-737-1700
Fax: 650-737-0933

REVISION HISTORY

Manual #	Date	Comments
C3401M	12/05	Original version.
C3401M-A	1/06	Added warning about over-tightening mounting hardware.